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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,468	12/22/2005	Oliver Fahnle	1248.001	2190

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EXAMINER

SCRUGGS, ROBERT J

ART UNIT	PAPER NUMBER
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3723

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/527,468

Applicant(s)

FAHNLE, OLIVER

Examiner

Robert Scruggs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-19, 21-24 and 26-34 is/are pending in the application.
- 4a) Of the above claim(s) 1-14, 20 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-19, 21-24 and 26-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)):

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to the Request for Continued Examination. In addition, receipt is acknowledged of a request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e) and a submission, filed on February 9, 2007. The applicant has cancelled claims 1-14, 20 and 25 and added claim 34 therefore claims 15-19, 21-24 and 26-34 will be fully examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 15-19, 21-24 and 26-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicant does not disclose any particular type of positioning means. All that is disclosed is a "not shown" positioning device. The examiner is unaware of what the "means" encompasses and cannot fully determine what other structures would be the equivalent to the "means" as being claimed therefore the scope of the claims is not completely understood. However, for this office action the examiner will consider all structures that position the tool as equivalent positioning means.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 15-19, 21-24 and 26-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashish et al. (5700181).

In reference to claims 15-17, 23, 24, 26, 29 and 32 Hashish et al. discloses a device for abrasive machining of surfaces of components comprising, a tool having an inlet and an outlet (see figure below) wherein the cross sectional area of the inlet is smaller than the cross sectional area of the outlet, a supply unit (64) for conveying to the inlet a liquid brought under various pressures in which abrasive agents are dissolved and emerged from the outlet, positioning means formed as hydraulic fluid and a control unit (96) both of which are part of the device guide the tool across a surface to be machined (16) and simultaneously position (Column 4, Lines 55-60) said tool in such a manner that the outlet faces the surface to be machined such that an area of an annular gap (see figure below) defined by boundary walls (see figure below) of the outlet and the surface to be machined is smaller than a cross-sectional area of the inlet, the cross-sectional area of the inlet being greater by a factor of at least 5 than the cross-sectional area of the annular gap, the height of the annular gap being smaller than 3mm and is preferably about 1mm (Column 3, Line 62-Column 4, Line 9), since the height of the annular gap

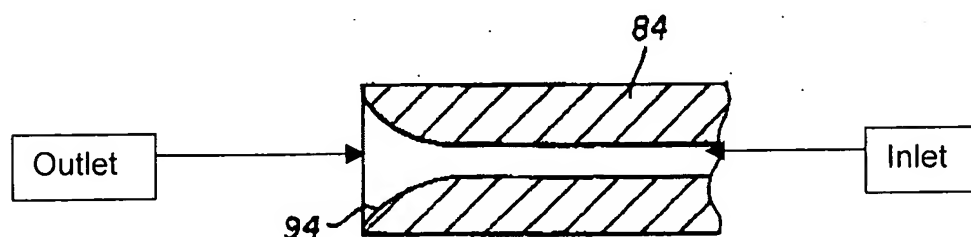
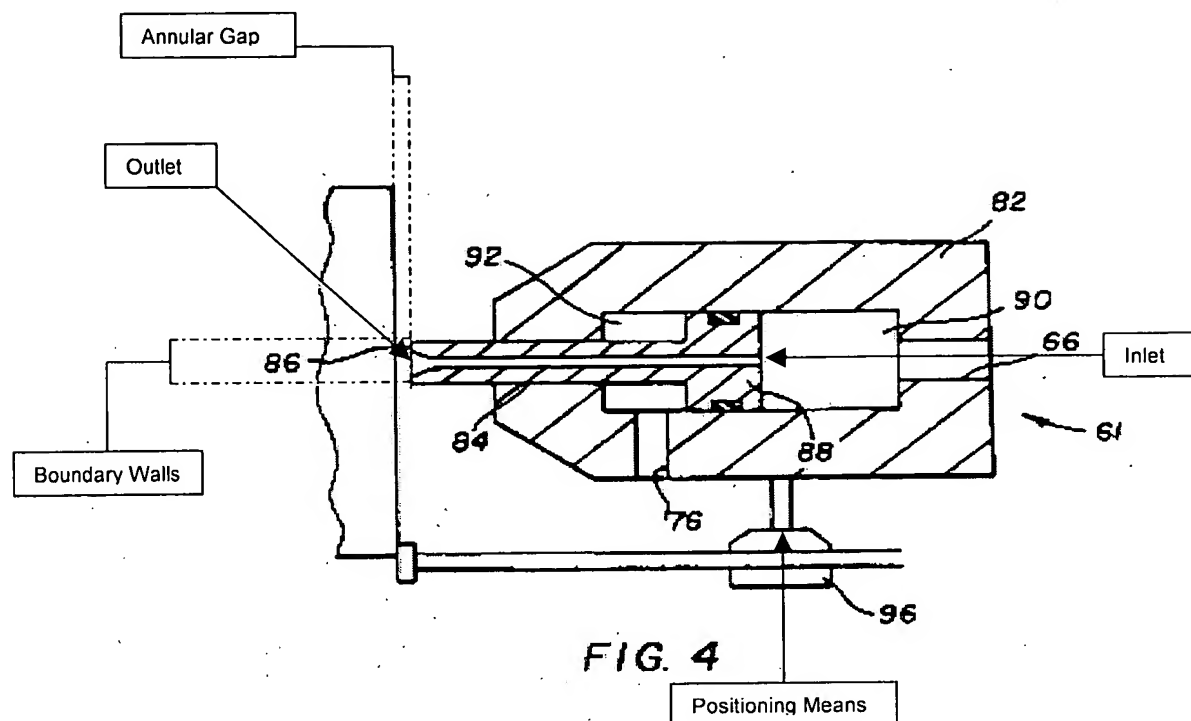
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can be varied, one could select a height that provides the cross-sectional area of the inlet being greater by a factor of at least 5 than the cross-sectional area of the annular gap.

In reference to claims 19, 28, Hashish et al. also discloses that outlet having a circular cross-section, and that the tool has a cylindrical outer contour in the region of the outlet (as seen in the figure below).

In reference to claims 33 and 34, Hashish et al. also discloses multiple pressures that could be used which include pressures being under 20 bar or even 5 bar (see Column 3, Lines 20-25).

In reference to claims 21, 22, 30 and 31 Hashish et al. inherently discloses that the outer diameter of the outlet could be formed by half of an aperture of an optical component and also being conformed to the smallest radius of the optical component depending on the type and size of the optical component selected by a user.



Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 18 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashish et al. (5700181) in view of Sotozaki et al. (6643882). Hashish et al. discloses the claimed invention previously mentioned above, but is silent in providing a rotary unit for rotating the workpiece. However, Sotozaki et al. discloses a rotary unit (Figure 1b) (73 and 70) that supports a workpiece (W). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, of Hashish et al. with a rotary unit, in view of Sotozaki et al. in order to effectively machine the entire surface of the workpiece.

8. Claims 23 and 32 are rejected under 35 U.S.C. 102(b) as anticipated by Hashish et al. (5700181) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Zeng (6244927). Assuming arguendo, that Hashish et al. does not disclose the positioning means, which include a control member that controls the positioning of the positioning means. Then, the examiner would use Zeng which teaches of a positioning means that includes a control unit (30) used for controlling the positioning of the tool according to the surface data of a workpiece (16) (Column 2, Lines 47-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the positioning means of Hashish et al., with positioning means formed as a control unit, in view of Zeng, in order to more effectively and accurately control the position of the tool in a polishing or grinding process.

Response to Arguments

9. Applicant's arguments filed February 9, 2007 have been fully considered but they are not persuasive.

10. Applicant's argument states, **"The inlet to the nozzle assembly 61 is at least as big as the outlet of nozzle assembly 61 at tip 86."**

a. The examiner respectfully disagrees with this statement. From figure 4 and also in the figures shown above the cross sectional area of the outlet is clearly larger than the cross sectional area of the inlet. Therefore, the examiner believes the rejection is proper and thus maintained.

11. Applicant's argument states, **"The examiner has suggested that the device disclosed in the '181 patent can position nozzle 61 such that the cross-sectional area of the inlet is greater by a factor of at least 5 than the cross-sectional area of the formed annular gap. However, the positioning means or support 91 disclosed in the ' 181 patent merely provides a course location for the nozzle. The position of the nozzle is actually controlled by the various hydraulic and frictional forces on the nozzle. See, Hashish et al, United States Patent No. 5,700,181, column 4, lines 55-57. As such, the device disclosed in the ' 181 patent does not provide a positioning means, as part of the device, the guides the tool across a surface to be machined and simultaneously positions the tool in such manner the cross-sectional area of the inlet of the tool is greater by a factor of at least 5 than the cross-sectional area of the formed annular gap, as required by independent claim 24. Such a structure is entirely absent from the '181 patent."**

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b. The examiner respectfully disagrees with this statement. The positioning means are part of the device and do guide and simultaneously position the tool. Even though the positioning means are formed from hydraulic fluid to simultaneously position the tool, the fluid is part of the device and the support arm (96) does initially guide the nozzle. However, the examiner also took Hashish et al. (5700181) in view of Zeng (6244927) in order to provide further support on this issue. The positioning means of Hashish et al. could easily be modified with the positioning means of Zeng which include a control member (30) as has been previously discussed above. Therefore, while the examiner believes that the initial positioning means of Hashish et al. meets the broad and indefinite limitations as claimed it could also easily be modified to have the positioning means as taught by Zeng.

Conclusion


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Scruggs whose telephone number is 571-272-8682. The examiner can normally be reached on Monday-Friday, 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RS



LEE D. WILSON
PRIMARY EXAMINER